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NEWS	5	NOV 18	Current-awareness alerts, saved answer sets, and current search transcripts to be affected by CERAB, COMPUAB, ELCOM, and SOLIDSTATE reloads
NEWS	6	NOV 30	PHAR reloaded with additional data
NEWS	7	DEC 01	LISA now available on STN
NEWS	8	DEC 09	12 databases to be removed from STN on December 31, 2004
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FILE COVERS 1907 - 16 Dec 2004 VOL 141 ISS 25
FILE LAST UPDATED: 15 Dec 2004 (20041215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s catalyst (l) carbon nanotube?
        675607 CATALYST
        678716 CATALYSTS
        865569 CATALYST
                  (CATALYST OR CATALYSTS)
       1093002 CARBON
         24320 CARBONS
       1101871 CARBON
                  (CARBON OR CARBONS)
         19993 NANOTUBE?
         15338 CARBON NANOTUBE?
                  (CARBON(W)NANOTUBE?)
L1        2290 CATALYST (L) CARBON NANOTUBE?

=> s l1 and react?
       4448977 REACT?
L2         994 L1 AND REACT?

=> s l2 and support
        401756 SUPPORT
        112377 SUPPORTS
        477371 SUPPORT
                  (SUPPORT OR SUPPORTS)
L3         214 L2 AND SUPPORT

=> s l3 and (honeycomb or foam or felt)
         12245 HONEYCOMB
           865 HONEYCOMBS
         12498 HONEYCOMB
                  (HONEYCOMB OR HONEYCOMBS)
         94728 FOAM
         53939 FOAMS
        105115 FOAM
                  (FOAM OR FOAMS)
         11693 FELT
          2677 FELTS
         12656 FELT
                  (FELT OR FELTS)
L4            0 L3 AND (HONEYCOMB OR FOAM OR FELT)

=> s l3 and reactor and microchannel?
        388051 REACTOR
        230660 REACTORS
        434639 REACTOR
                  (REACTOR OR REACTORS)
          4893 MICROCHANNEL?
L5            0 L3 AND REACTOR AND MICROCHANNEL?

=> s l3 and chemical reaction
```

```
         850769 CHEMICAL
          46791 CHEMICALS
         890400 CHEMICAL
                (CHEMICAL OR CHEMICALS)
        1415760 CHEM
          65972 CHEMS
        1452713 CHEM
                (CHEM OR CHEMS)
        2048715 CHEMICAL
                (CHEMICAL OR CHEM)
        2757536 REACTION
        1986737 REACTIONS
        3683083 REACTION
                (REACTION OR REACTIONS)
          70097 CHEMICAL REACTION
                (CHEMICAL(W)REACTION)
L6            6 L3 AND CHEMICAL REACTION

=> s l3 and monolith
           3023 MONOLITH
           2169 MONOLITHS
           4397 MONOLITH
                (MONOLITH OR MONOLITHS)
L7            0 L3 AND MONOLITH

=> d his

     (FILE 'HOME' ENTERED AT 13:30:14 ON 16 DEC 2004)

     FILE 'CAPLUS' ENTERED AT 13:30:30 ON 16 DEC 2004
L1         2290 S CATALYST (L) CARBON NANOTUBE?
L2          994 S L1 AND REACT?
L3          214 S L2 AND SUPPORT
L4            0 S L3 AND (HONEYCOMB OR FOAM OR FELT)
L5            0 S L3 AND REACTOR AND MICROCHANNEL?
L6            6 S L3 AND CHEMICAL REACTION
L7            0 S L3 AND MONOLITH

=> s l1 and (honeycomb or foam or felt)
          12245 HONEYCOMB
            865 HONEYCOMBS
          12498 HONEYCOMB
                (HONEYCOMB OR HONEYCOMBS)
          94728 FOAM
          53939 FOAMS
         105115 FOAM
                (FOAM OR FOAMS)
          11693 FELT
           2677 FELTS
          12656 FELT
                (FELT OR FELTS)
L8            6 L1 AND (HONEYCOMB OR FOAM OR FELT)

=> s l6 or l8
L9           12 L6 OR L8

=> d l9 ibib ab 1-12

L9   ANSWER 1 OF 12  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2004:1035317  CAPLUS
TITLE:                   Sheet-type catalyst support structure
                         utilizing carbon nanotube and its
                         production
INVENTOR(S):             Shioyama, Hiroshi; Yamada, Yusuke; Inazumi, Kon;
```

Kishida, Masaki; Saira, Tomonori; Ishibe, Jiro; Fujita, Daisuke; Sawai, Momoyo; Nakayama, Yoshikazu

PATENT ASSIGNEE(S): National Institute of Advanced Industrial Science and Technology, Japan; Hitachi Shipbuilding and Engineering Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004337731	A2	20041202	JP 2003-136717	20030515
PRIORITY APPLN. INFO.:			JP 2003-136717	20030515

AB The invention refers to a sheet-type **catalyst** structure which may be easily constructed into helical or **honeycomb** structures, comprising catalytic metals supported on **carbon nanotubes** placed vertically on the surface of the sheet like bristles on a brush, wherein the sheet preferable comprises polyester, polyethylene, fluoropolymer, or acrylic synthetic resins, and the catalytic metal is preferably Pt, Au, Ru, Rh, Ir or Pd.

L9 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:266621 CAPLUS
DOCUMENT NUMBER: 140:255705
TITLE: Direct synthesis of single-walled carbon nanotubes on silicon and quartz-based systems
AUTHOR(S): Murakami, Yoichi; Chiashi, Shohei; Miyauchi, Yuhei; Maruyama, Shigeo
CORPORATE SOURCE: Department of Mechanical Engineering, The University of Tokyo, Tokyo, 113-8656, Japan
SOURCE: Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes & Review Papers (2004), 43(3), 1221-1226
CODEN: JAPNDE
PUBLISHER: Japan Society of Applied Physics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A newly developed technique of synthesizing single-walled **carbon nanotubes** (SWNTs) directly on the surface of Si and quartz substrates is introduced. This technique adopted a liquid-based dip-coating method to mount a very small amount of **catalyst** metals on the surface of substrates using Mo/Co bimetallic acetate solution The merits of this approach lie in its easy, costless, and geometry-flexible nature compared with conventional sputtering and deposition approaches. We used the alc. catalytic chemical vapor deposition (ACCVD) method that can produce relatively high-quality SWNTs even at low temps. down to 600°C. This low-temperature process contributes to the prevention of the agglomeration of catalytic metals on the surface and **chem. reaction** between catalytic metal and silicon, which helps us to eliminate any kind of intermediating **support** materials. Thereby synthesized SWNTs on Si and quartz substrates under various CVD conditions are characterized by means of SEM, TEM, Raman scattering, and optical absorbance measurements. The underlying reasons our exptl. procedure and choice of **catalyst** worked for the synthesis of SWNTs are discussed through comparative studies. At the end of this report, some possible applications of this technique are stated.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:109599 CAPLUS

DOCUMENT NUMBER: 140:325251
TITLE: Carbon nanotubes-ceramic composites
AUTHOR(S): Flahaut, E.; Rul, S.; Lefevre-Schlick, F.; Laurent, Ch.; Peigney, A.
CORPORATE SOURCE: CIRIMAT/LCMIE-UMR CNRS 5085, University Paul Sabatier, Toulouse, F-31062, Fr.
SOURCE: Ceramic Transactions (2004), 148(Ceramic Nanomaterials and Nanotechnology II), 71-82
CODEN: CETREW; ISSN: 1042-1122
PUBLISHER: American Ceramic Society
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. The use of **carbon nanotubes** (CNTs) as reinforcing elements in polymer-, metal-, or ceramic-matrix composites is widely studied. However, the dispersion of the CNTs within the matrix is a critical step in the preparation of these composites. A very homogeneous dispersion of the CNTs can be achieved by their synthesis in-situ inside an alumina-based powder. The CCVD method produces single- and double-walled CNTs, individual or gathered in small bundles, forming a network surrounding the oxide grains. Recently the authors developed the synthesis of CNTs from oxides solid solution **foams**, prepared by the gel-casting-**foam** method. This preparation allows a four-fold increase in the amount of CNTs compared to the corresponding powder **catalyst**. Dense CNT-Fe-Al2O3 composites were prepared by hot-pressing as well as CNT-FeCo-MgAl2O4 and CNT-Co-MgO composites. Despite some pull-out during the fracture, a real reinforcement was not evidenced. The CNTs provide to the composites an elec. conductivity between 0.2 and 4 S cm-1. It was managed to align the CNTs within the ceramic by hot-extrusion, thus leading to an elec. conductivity anisotropy.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:9770 CAPLUS
DOCUMENT NUMBER: 140:131044
TITLE: Rapid synthesis of Pt/carbon nanometer catalyst by microwave irradiation and its electrocatalytic activity for electrooxidation of methanol
AUTHOR(S): Chen, Wei-Xiang; Han, Gui; Lee, Jim-Yang; Liu, Zhao-Lin
CORPORATE SOURCE: Department of Chemistry, Zhejiang University, Hangzhou, 310027, Peop. Rep. China
SOURCE: Gaodeng Xuexiao Huaxue Xuebao (2003), 24(12), 2285-2287
CODEN: KTHPDM; ISSN: 0251-0790
PUBLISHER: Gaodeng Jiaoyu Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Microwave irradiation, a rapid, uniform, and efficient heating method, is widely used for **chem. reactions** and for preparation of nanomaterials. Pt/C nanotube (CNT) catalysts with w(Pt) = 18.1% and 9.4% were rapidly synthesized by microwave irradiation heating polyol process and by employing an ethylene glycol solution of H2PtCl6 as the precursor in the presence of CNT **support**. TEM imaging showed that microwave-prepared Pt nanoparticles were uniform in size, with an average size of 3.1 nm, and they were uniformly dispersed on the CNT surface. Electrochem. expts. demonstrated that microwave-synthesized Pt/CNT catalysts exhibited a higher catalytic activity for electrooxidn. of liquid MeOH than E-TEK Pt/C. The significant improvement in catalyst performance is due to the fact that microwave-synthesized Pt nanoparticles have a uniform small particle size and uniform dispersion on the CNT surface.

L9 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:492284 CAPLUS
DOCUMENT NUMBER: 139:38643
TITLE: Manufacture of a carbon nanotube structure with porous supports
INVENTOR(S): Wang, Yong; Chin, Ya-Huei; Gao, Yufei; Aardahl, Christopher L.; Stewart, Terri L.
PATENT ASSIGNEE(S): Battelle Memorial Institute, USA
SOURCE: U.S. Pat. Appl. Publ., 22 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003116503	A1	20030626	US 2001-36332	20011224
US 6824689	B2	20041130		
WO 2003059813	A2	20030724	WO 2002-US40874	20021219
WO 2003059813	A3	20031023		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1465836	A2	20041013	EP 2002-806481	20021219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.:
US 2001-32207 A 20011221
US 2001-36332 A 20011224
WO 2002-US40874 W 20021219

AB The invention relates to a process for making a carbon nanotube structure, wherein the nanotubes are disposed over a porous support such as a **foam**, **felt**, mesh, or membrane. In some of these techniques, a support is pretreated with a templated surfactant composition to assist with the formation of a nanotube layer.

L9 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:417509 CAPLUS
DOCUMENT NUMBER: 138:407517
TITLE: Composites based on carbon nanotubes deposited on an activated **support** for application in catalysis
INVENTOR(S): Pham, Huu Cuong; Vieira, Ricardo; Ledoux, Marc J.; Charbonniere, Loic; Ziessel, Raymond
PATENT ASSIGNEE(S): Sicat, Fr.
SOURCE: Fr. Demande, 28 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2832649	A1	20030530	FR 2001-15178	20011123
FR 2832649	B1	20040709		
WO 2003048039	A2	20030612	WO 2002-FR3965	20021120
WO 2003048039	A3	20031211		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1448477 A2 20040825 EP 2002-801071 20021120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.: FR 2001-15178 A 20011123
WO 2002-FR3965 W 20021120

AB The invention relates to a composite comprising an activated **support** and nanotubes or nanofibers of carbon formed by vapor deposition, and the use of these composites as catalyst or catalyst **support** of **chem. reactions** in gaseous medium or liquid, in particular in the chemical or petrochem. industry and depollution of exhaust fumes of motor vehicles, and satellite propulsion.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:409836 CAPLUS
DOCUMENT NUMBER: 140:134357
TITLE: Tunable self-assembly of carbon nanotubes on silica surface
AUTHOR(S): Zhang, Z. J.; Wei, B. Q.; Ajayan, P. M.
CORPORATE SOURCE: Department of Materials Science and Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China
SOURCE: Surface Engineering: Science and Technology II, Proceedings of a Symposium held during the TMS Annual Meeting, Seattle, WA, United States, Feb. 17-21, 2002 (2002), 99-109. Editor(s): Kumar, Ashok. Minerals, Metals & Materials Society: Warrendale, Pa. CODEN: 69DYQ4; ISBN: 0-87339-521-2
DOCUMENT TYPE: Conference
LANGUAGE: English

AB The authors report here self-assembly behaviors of C nanotubes on planar SiO2 substrates, tunable with a catalytic CVD approach. In this CVD process, different from several approaches reported, the catalyst (from ferrocene) and C (from xylene) are introduced simultaneously via the vapor phase; thus the ratio of catalyst/C in the vapor phase can be adjusted, which tunes the assembly behavior and growth pathways of nanotubes. Depending on this ratio, C nanotubes organize themselves into growth units of crystal-like, spherulite-like and **honeycomb** networks, at the early growth stages. Prolonged deposition leads to the nanotubes films of different morphologies, developed from these units. Study provides the 1st ever glimpse of early stages of nanotubes growth and possible pathways through which nanotubes assemble and grow into continuous films.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:674437 CAPLUS
DOCUMENT NUMBER: 137:219293
TITLE: Method of using carbide and/or oxycarbide containing compositions
INVENTOR(S): Moy, David; Niu, Chunming; Ma, Jun; Willey, Jason M.
PATENT ASSIGNEE(S): Hyperion Catalysis International, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 27 pp., Cont.-in-part of U.S. Ser. No. 615,350, abandoned.

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2002121460	A1	20020905	US 2001-23618		20011218
US 6809229	B2	20041026			
US 6514897	B1	20030204	US 2000-481184		20000112
US 2003035769	A1	20030220	US 2002-170269		20020611
PRIORITY APPLN. INFO.:			US 1999-115735P	P	19990112
			US 2000-481184	A2	20000112
			US 2000-615350	B2	20000712

AB Compns. including carbide-containing nanorods and/or oxycarbide-containing nanorods and/or **carbon nanotubes** bearing carbides and oxycarbides and methods of making the same are provided. Rigid porous structures including oxycarbide-containing nanorods and/or carbide containing nanorods and/or **carbon nanotubes** bearing carbides and oxycarbides and methods of making the same are also provided. The compns. and rigid porous structures of the invention can be used either as **catalyst** and/or **catalyst supports** in fluid phase catalytic **chem. reactions**. Processes for making supported **catalyst** for selected fluid phase catalytic **reactions** are also provided.

L9 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:426560 CAPLUS
DOCUMENT NUMBER: 137:21768
TITLE: Manufacture of **carbon nanotube catalysts**
INVENTOR(S): Unger, Eugen
PATENT ASSIGNEE(S): Infineon Technologies A.-G., Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10048406	A1	20020606	DE 2000-10048406	20000929
PRIORITY APPLN. INFO.:			DE 2000-10048406	20000929

AB The title catalysts are manufactured by bringing into contact a C nanotube with a fluid, which contains ≥1 metal catalyst or their precursor, whereby the metal catalyst or precursor is brought into the interior of the nanotube, separating the nanotube from the fluid and treating the nanotube under reducing conditions needed to partly etch away the C structure of the nanotube. For example, a sheet of C nanotube **felt** was immersed for ≥10 min in molten $AgNO_3$ at 220-230°, rinsed with H_2O at 4°, air dried and subjected to H plasma (containing 1% Ar or He) for 20 min to give a title catalyst.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:314148 CAPLUS
DOCUMENT NUMBER: 137:36550
TITLE: Self-networking of carbon nanotubes
AUTHOR(S): Zhang, Zhengjun; Wei, Bingqing; Ajayan, P. M.
CORPORATE SOURCE: Department of Materials Science and Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China

SOURCE: Chemical Communications (Cambridge, United Kingdom) (2002), (9), 962-963
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Carbon nanotube** self-assembly into **honeycomb** -networks via controlling the ratio of the **catalyst** over hydrocarbon in the vapor phase using a tunable chemical vapor deposition process is described.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:525996 CAPLUS
DOCUMENT NUMBER: 135:109508
TITLE: Carbide- and oxycarbide-based compositions, rigid porous structures including the same, and methods of making and using the same as petroleum refining catalysts
INVENTOR(S): Moy, David; Niu, Chun-Ming; Ma, Jun; Willey, Jason M.
PATENT ASSIGNEE(S): Hyperion Catalysis International, Inc., USA
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001051201	A1	20010719	WO 2000-US19121	20000719
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6514897	B1	20030204	US 2000-481184	20000112
CA 2396922	AA	20010719	CA 2000-2396922	20000719
EP 1246695	A1	20021009	EP 2000-973348	20000719
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003523913	T2	20030812	JP 2001-551611	20000719

PRIORITY APPLN. INFO.:

US 2000-481184	A	20000112
US 1999-115735P	P	19990112
WO 2000-US19121	W	20000719

AB Compns. including oxycarbide-based nanorods and/or carbide-based nanorods and/or **carbon nanotubes** bearing carbides and oxycarbides and methods of making the same are provided. Rigid porous structures including oxycarbide-based nanorods and/or carbide-based nanorods and/or **carbon nanotubes** bearing carbides and oxycarbides and methods of making the same are also provided. The compns. and rigid porous structures of the invention can be used either as **catalyst** and/or **catalyst supports** in fluid phase catalytic **chem. reactions**. Processes for making supported **catalyst** for selected fluid phase catalytic **reactions** are also provided. The fluid phase catalytic **reactions** include hydrogenation, hydrodesulfurization, hydrodenitrogenation, hydrodemetallization, hydrodeoxygenation, hydrodearomatization, dehydrogenation, hydrogenolysis, isomerization,

alkylation, dealkylation and transalkylation.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:493447 CAPLUS
DOCUMENT NUMBER: 133:122599
TITLE: Carbide and oxycarbide based compositions and nanorods
INVENTOR(S): Moy, David; Niu, Chun-Ming; Ma, Jun; Willey, Jason M.
PATENT ASSIGNEE(S): Hyperion Catalysis International, Inc., USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000041808	A1	20000720	WO 2000-US753	20000112
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2359336	AA	20000720	CA 2000-2359336	20000112
EP 1152827	A1	20011114	EP 2000-903266	20000112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002534351	T2	20021015	JP 2000-593411	20000112
AU 764311	B2	20030814	AU 2000-25040	20000112
PRIORITY APPLN. INFO.:			US 1999-115735P P	19990112
			WO 2000-US753 W	20000112

AB Compns. including oxycarbide-based nanorods and/or carbide-based nanorods and/or **carbon nanotubes** bearing carbides and oxycarbides and methods of making the same are provided. Rigid porous structures including oxycarbide-based nanorods and/or carbide based nanorods and/or **carbon nanotubes** bearing carbides and oxycarbides and methods of making the same are also provided. The compns. and rigid porous structures of the invention can be used either as **catalyst** and/or **catalyst supports** in fluid phase catalytic **chem. reactions**. Processes for making supported **catalyst** for selected fluid phase catalytic **reactions** are also provided. The fluid phase catalytic **reactions** catalyzed include hydrogenation, hydrodesulfurization, hydrodenitrogenation, hydrodemetallization, hydrodeoxygenation, hydrodearomatization, dehydrogenation, hydrogenolysis, isomerization, alkylation, dealkylation and transalkylation.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT